



THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:)
GORTY ET AL.)
Serial No. 10/767,571) Examiner: J. Hu
Filing Date: January 29, 2004)
Confirmation No. 6197 Art Unit: 2154
For: **SYSTEM AND METHOD OF POLLING**)
ELECTRONIC MAILBOXES)

)

SUPPLEMENTAL DECLARATION UNDER 37 C.F.R. 1.131

Mail Stop Amendment
Commissioner for Patents
P. O. Box 1450
Alexandria, VA 22313-1450

Sir:

We, **Suryanarayana Murthy GORTY** and **Shaibal ROY**, do hereby declare and state:

1. We are the co-inventors of claims 1-33 as originally filed in the above-identified patent application.

2. Applicants have reviewed the Office Action dated September 9, 2005 in which the Examiner stated the original 131 Declaration was insufficient because greater details concerning the reduction to practice should be submitted and clarification as to dates submitted. This Supplemental Declaration is submitted in response to that Office Action. For purposes of clarity, Exhibit 1 has now been resubmitted with all dates included. Applicants also

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submit Exhibits 2, 3 and 4 that show details regarding the timeline achieved when drafting code and the timeframe regarding reduction to practice that occurred prior to August 7, 2003, the effective date of U.S. patent application publication no. 2005/0039048 to Tosey.

3. We conceived and reduced to practice the subject matter of the above-identified patent application while working in our offices in the United States at TeamOn Systems, Inc., 1180 NW Maple Street, Issaquah, Washington 98027, prior to August 7, 2003, the effective date of U.S. patent application publication no. 2005/0039048 to Tosey.

4. We conceived of a communications system and method of polling electronic mailboxes in which a polling agent polls an electronic mailbox to retrieve unique identifiers (UID's) of electronic messages. A database stores the UID's resulting from the polling. The polling agent is operative for polling the electronic mailbox and retrieving only those UID's that are newer than the UID's from a previous polling to determine that new messages are available. Claim 1 recites this function and structure.

5. We worked diligently and, as shown in Exhibit 1, had drafted details of a functional specification before August 7, 2003. The functional specification shown in Exhibit 1 indicates the type of details and software engine that will make polling efficient to retrieve UID's from a source, such as in reverse chronological order. Technical details of the optimization for the system and method are also set forth. This functional specification indicates that we had worked

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out many of the details of the claimed invention to determine the best operating manner. In a few weeks after this functional specification was completed, we reduced to practice and implemented software for operation and testing.

6. Page 2 of Exhibit 1 explains various details. The efficient implementation of the system and method includes "new-mail-only" polls in which the engine for polling and aggregation, i.e., the "AggEngine" retrieves UID's from a source in small batches in reverse chronological order until it sees a UID that already exists in the database. This engine includes a function "AggCron" that can make the choice between "new-mail-only" and "regular" polls. There is a use of a POP proxy that could be used with some deletions at the source. Some optimization could keep the UID's in the database longer after the messages have been deleted at the source. This functional specification discusses OWA and iNotes protocols, which are web-based mail applications from Microsoft and IBM, respectively, indicating that web pages can be retrieved page-by-page to determine a new message list.

7. The bottom portion of page 2 and pages 3, 4 and 5 of Exhibit 1 includes data regarding the UID targets and optimization that supports the functional specification.

8. Exhibits 2, 3 and 4 are snapshots of code archives that explain that software coding was accomplished in March 2003. These exhibits contain project tracking and

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source-code control. Exhibit 2 shows the times of code check-ins of a file that had been modified. Revision 1.130 indicated by the arrow at the side on sheet 1 of Exhibit 2 shows that certain attributes and a poll type had been added to the software code. The comment mentions poll type=new that marks the differentiation between "new-mail-only" and "regular" polls as outlined in paragraph 6 above. Sheets 2 and 3 are enlarged portions of the first sheet. The snapshots date from before August 7, 2003, but these copies had been printed at November 12, 2005 at our attorney's offices indicated in the printout for purposes of this Supplemental 131 Declaration.

9. Exhibit 3 shows that the project was tracked and that the release was scheduled for April 2003 and testing done on April 11 as shown in ID609 at the bottom of sheet 2 and the bottom of the full page printout on sheet 1. Exhibit 4 is a continuation of Exhibit 3, but the screen shot did not completely capture the entry, but shows that the last changes for tracking this project were done on April 29, 2003. Actual coding and testing had been done by that time. Testing had been done by April 11, 2003. Thus, it is clear that the subject matter of at least claim 1 and other dependent claims had been reduced to practice in code and tested prior to August 7, 2003. We had been working consistently with reducing bandwidth requirements even before August 7, 2003.

10. After we had reduced to practice the claimed invention before August 7, 2003, we worked diligently to

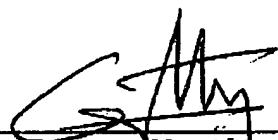
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improve the function in the reduced to practice software and made some code modifications.

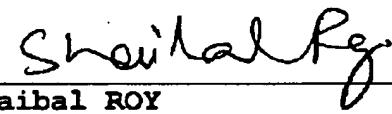
11. After working with our patent attorneys, we filed a patent application on the system and method as claimed on January 29, 2004.

12. We hereby declare that all statements made herein are of my own knowledge and are true and all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title XVIII of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

12/5/2005
Date


Suryanarayana Murthy GORTY

12/5/2005
Date


Shaibal ROY

TeamOn Feature Summary

Title: Polling Optimization

File: Arch_Polling Optimization.doc

Date: February 18, 2003

Author: Jon Smith

Revision history:	1
Open issues, questions & comments	1
Overview:	1
Goals:	1
Current process:	1
Assumptions:	1
Scope:	1
Details:	2

Revision history:

February 18, 2003 – Jon – Shaibal's original e-mail defining the feature

Open issues, questions & comments:

Overview:

{Provide a one-page paragraph of the feature}

Goals:

[Define the goals of the project and specific objectives within each of the goals.]

Current process:

[Describe the current process, if any.]

Assumptions:

List assumptions made.

Scope:

[Define the scope of the feature, what will and will not be included.]

Details:

[Provide the details of the feature including implications to UI, security, documentation, training, existing processes, existing partners, etc.]

"Polling optimization"

The objectives will include:

- Reduce our Exodus bill (and that of others using MOP)
- Reduce workload on POP mail providers
- Reduce workload on OWA 5.5 servers
- Reduce workload on OWA 2k and iNotes servers

Note that the first two objectives may turn out to be the same, given the preponderance of POP3 among our current customers. The only question here is whether a large enough number of the POP mailboxes that we are polling contain a large number of messages. If so, optimization of the POP3 polls by itself should bring down our Exodus bills. If not, we may need to do POP, OWA 5.5 and OWA 2k to bring down the Exodus bills.

Technical details:

One way to make polling more efficient is to make the vast majority of polls "new-mail-only" polls. Such polls do not check to see whether any messages have been deleted from the source. Only a small minority of polls will check the entire source mailbox to see what has been deleted. An efficient implementation of "new-mail-only" polls will have AggEngine retrieve UIDs from the source in small batches in reverse chronological order (we may have to make some assumptions about the chronological order at the source) until it sees a UID that already exists in the database. AggCron will make the choice between "new-mail-only" and "regular" polls, choosing the former much more frequently than the latter.

More Technical details:

The "new-mail-only" polls don't work very well for our POP Proxy, which needs the list of UIDs in our database to reflect the deletions at the source. This optimization will keep the UIDs in our database longer after the messages have been deleted at the source. However, we can't just get away by making the polls triggered by POP logins to be "regular"-- those are precisely the polls that we need to be fast. Let me elaborate on this in my next email -- but let's not do anything special for POP Proxy in this FPL item.

-shaibal

Darren collected the following data to help us determine where polling needs optimization. Let me pull out a part of it as highlight:

```
QUERY (number of Uids stored for active source mailboxes, by protocol):
protocolName
-----
domino      30995
imap        200
native      100594
owa         162961
pop         728465
rpa         47
```

That tells me that the top four targets for optimization are:

- 1) pop

- 2) owa
- 3) native
- 4) domino

Now, owa is not split off into owa 5.5 and owa 2k. But I think this optimization is more important for 5.5 than for 2k. IF you buy that, the priority goes like this:

- 1) pop
- 2) owa 5.5
- 3) owa 2k
- 4) native (already covered by owa 2k?)
- 5) domino

BTW, there is an iNotes account with over 23,000 uids!

-shaibal

-----Original Message-----

From: D Gardner [mailto:dgardner@hq.teamon.com]
Sent: February 13, 2003 5:08 PM
To: Shaibal Roy
Subject: Uid numbers

Shaibal, here are the numbers from the T-Mobile system

QUERY (number of active source mailboxes, by protocol):

```
-----
set transaction isolation level 0
go
select smb.protocolName
    ,count(*)
  from SrcMbox smb
 where smb.nextPoll <> 9999999999
   group by smb.protocolName
go
set transaction isolation level 1
go
```

RESULT:

```
-----
protocolName
-----
CS2000      449
domino      12
imap        1228
native       328
owa         431
pop         23509
rpa          4
(7 rows affected)
```

QUERY (number of Uids stored for active source mailboxes, by protocol):

```
-----
set transaction isolation level 0
```

```

go
select smb.protocolName
      ,count(*)
  from SrcMbox smb
  ,SrcMboxMsg smbm
 where smb.nextPoll <> 9999999999
   and smbm.srcMboxID = smb.srcMboxID
 group by smb.protocolName
go
set transaction isolation level 1
go

```

RESULT:

```

-----
protocolName
-----
domino      30995
imap        200
native     100594
owa       162961
pop       728465
rpa        47
(6 rows affected)
```

THEREFORE, the average number of Uids per active source mailbox, by protocol, sorted ascending by AVERAGE:

protocolName	NumSrcMboxes	NumUids	AVERAGE	
CS2000	449	0	0	
imap	1228	200	0.16	<-- Odd. Why do IMAP
sources				
have Uids? See (1) below				
rpa	4	47	12	
pop	23509	728465	31	
native	328	100594	307	
owa	431	162961	378	
domino	12	30995	2583	<-- Odd. Very large! See
(2)				
below				

(1) It turns out that there are 6 IMAP source mailboxes with Uids:

srcMboxID	NumUids
121901	2
99620	4
155490	11
158244	19
131557	21
122489	162
(6 rows affected)	

I will look into these. Perhaps they converted a POP source into an IMAP

```
source(?)
```

(2) Since there are only 12 domino source mailboxes, I created a histogram,
which point to one odd mailbox:

srcMboxID	NumUids
88585	1
121236	1
128721	11
96063	13
153409	13
147878	139
62318	238
95250	311
88894	1436
143683	1694
91490	3936
156273	23205 <-- This one looks pretty goofy. It is NOT a test account. It was created on 2/10/2003. (12 rows affected)

I will try to break down the numbers a bit more. Let me know if you
want me
to run the OnCommand numbers as well.

Darren

A screenshot of Microsoft Internet Explorer 11. The address bar shows the URL: "http://123.456.com/return/return.jsp?tembno=1234567890 - Microsoft Internet Explorer". The page content displays a search result for "CDS" with the following text:

CDS (for 123.456.com/return/return.jsp?tembno=1234567890) - Microsoft Internet Explorer

Back Forward Stop Refresh Home Help

Search Group Select Check Author Print Open

CDS (for 123.456.com/return/return.jsp?tembno=1234567890) - Microsoft Internet Explorer

http://123.456.com/return/return.jsp?tembno=1234567890

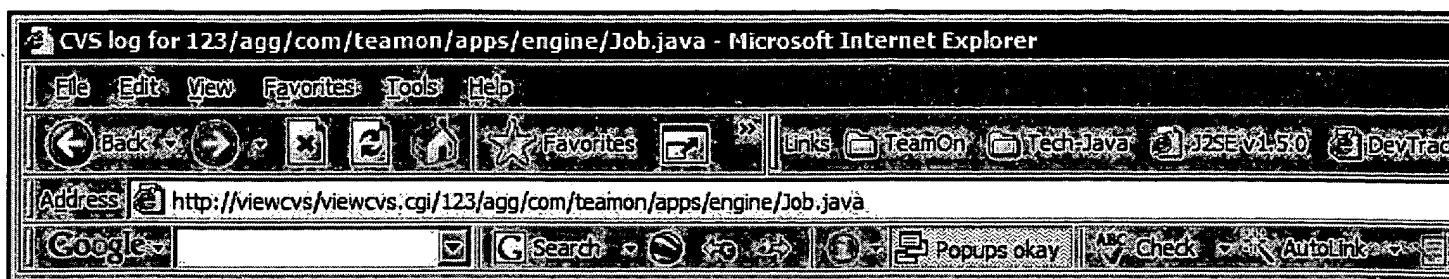
CDS (for 123.456.com/return/return.jsp?tembno=1234567890) - Microsoft Internet Explorer

Branch: **MAIN**
CVS Tags: trunk-20030320-1750, trunk-20030320-1246, trunk-20030320-1231, trunk-20030320-1205, trunk-20030320-1148, trunk-20030319-1259, trunk-20030319-1122, trunk-20030318-1500, trunk-20030317-1654, trunk-20030317-1500, trunk-20030317-1315, trunk-20030316-1500, trunk-20030315-1500, trunk-20030314-1621, trunk-20030314-1500, apf03-20030324-1018
Branch point for: apf03
Changes since 1.130: +6 -14 lines
Diff to previous 1.130

Branch: 8792 fix quick poll

Revision 1.130 [view] - annotate - [select for diffs] - Sun Mar 8 11:43:06 2003 UTC (2 years, 8 months ago) by prasad
Branch: MAIN
CVS Tags: trunk-20030313-1809, trunk-20030313-1500, trunk-20030312-1735, trunk-20030312-1500, trunk-20030311-1500, trunk-20030310-1500, trunk-20030309-1500, trunk-20030308-1500
Changes since 1.129: +68 -34 lines
Diff to previous 1.129

Added attributes total and politype.
For polypnames, we don't deleted nids from the DB.



Revision [1.131](#) / [\(view\)](#) - [annotate](#) - [select for diffs], Fri Mar 14 22:47:13 2003 UTC (2 years, 7 months ago) by Branch: **MAIN**

CVS Tags: [trunk-20030320-1750](#), [trunk-20030320-1246](#), [trunk-20030320-1231](#), [trunk-20030320-1205](#), [trunk-1500](#), [trunk-20030317-1654](#), [trunk-20030317-1500](#), [trunk-20030317-1315](#), [trunk-20030316-1500](#), [trunk-200](#)

Branch point for: [apr03](#)

Changes since 1.130: +6 -14 lines

Diff to previous 1.130

BugId: 8792 fix quick poll

Revision [1.127.2.3](#) / [\(view\)](#) - [annotate](#) - [select for diffs], Fri Mar 14 22:31:01 2003 UTC (2 years, 7 months ago)

Branch: [feb03](#)

CVS Tags: [feb03 BWC17-20030606-1054](#), [feb03 BWC17-20030603-1710](#), [feb03 BWC17-20030521-1149](#), [20030421-1718](#), [feb03 BWC17-20030410-1928](#), [feb03 BWC17-20030410-1512-20030410-1622](#), [feb03 BWC17-20030408-0916](#), [feb03 BWC17-20030402-1723](#), [feb03 BWC17-20030402-1627](#), [feb03 BWC1659](#), [feb03-20030314-1505](#)

Branch point for: [feb03 BWC17](#)

Changes since 1.127.2.2: +6 -14 lines

Diff to previous 1.127.2.2 to branch point 1.127 to next main 1.128

BugId: 8792 fix quick poll

Revision [1.130](#) / [\(view\)](#) - [annotate](#) - [select for diffs], Sat Mar 8 11:43:06 2003 UTC (2 years, 8 months ago) by p

Branch: **MAIN**

CVS Tags: [trunk-20030313-1809](#), [trunk-20030313-1500](#), [trunk-20030312-1735](#), [trunk-20030312-1500](#), [trunk-1500](#)

Changes since 1.129: +68 -34 lines

Diff to previous 1.129

Added attributes total and polltype.

For polltype=new, we dont deleted uids from the DB.

BugId:0

FPL:609

Revision [1.129](#) / [\(view\)](#) - [annotate](#) - [select for diffs], Fri Jan 31 09:09:20 2003 UTC (2 years, 9 months ago) by j

Branch: **MAIN**

CVS Tags: [trunk-20030307-1500](#), [trunk-20030307-1146](#), [trunk-20030306-1556](#), [trunk-20030305-1611](#), [trunk-1105](#), [trunk-20030304-1026](#), [trunk-20030303-1620](#), [trunk-20030302-1620](#), [trunk-20030301-1619](#), [trunk-20030225-1621](#), [trunk-20030224-1619](#), [trunk-20030223-1619](#), [trunk-20030222-1619](#), [trunk-20030222-0946](#), [trunk-20030219-1620](#), [trunk-20030218-1620](#), [trunk-20030217-1619](#), [trunk-20030216-1619](#), [trunk-20030212-1619](#), [trunk-20030211-1623](#), [trunk-20030210-1808](#), [trunk-20030209-1619](#), [trunk-20030208-1620](#)

11497_QuickPollCheckIn1.JPG



Assessment	Description	Test Plan	Requirement	Design	Code	Notes
425 10 Mail Box	Provides the ability for a user to view details so that email delivered to a mailbox. Messages are stored in their mailbox.	Test Plan: See description. <input checked="" type="checkbox"/> Review required? Design: See description. <input checked="" type="checkbox"/> Review required?	Requirement: See description. <input checked="" type="checkbox"/> Review required? Design: See description. <input checked="" type="checkbox"/> Review required?	Test Plan: See description. <input checked="" type="checkbox"/> Review required?	Ac032	Feature Complete Blunt On Target
426 10 Account Provisioning Changes	This feature indicates changes to the provisioning form end-to-end to increase user success. It also may include an import concern that are specific to Corporate mode.	Test Plan: See description. <input checked="" type="checkbox"/> Review required?	Requirement: See description. <input checked="" type="checkbox"/> Review required? Design: See description. <input checked="" type="checkbox"/> Review required?	Test Plan: See description. <input checked="" type="checkbox"/> Review required?	Ac033	Code Complete Blunt On Target
428 10 Receive SMTP for sharing	This is directly related to the WAP port FPP item and should be addressed in the same checklist: <ul style="list-style-type: none">o Landing conclusion to replace START SETo SNPP 2.4o PAP/PAK Access Protocol	Test Plan: See description. <input checked="" type="checkbox"/> Review required?	Requirement: See description. <input checked="" type="checkbox"/> Review required? Design: See description. <input checked="" type="checkbox"/> Review required?	Test Plan: See description. <input checked="" type="checkbox"/> Review required?	Ac034	Code Complete Blunt On Target
429 13 Polling Configuration	Operations include: <ul style="list-style-type: none">• Reduce configuration clutter and limit our endpoint list.• Polling updated to POCM multi-processes• Polling updated on OIVL 5.5• Polling updated on OIVL 2.0 and OIVL 3.0• O/Cs column is to track the quantity of calls from small daily calls. These polls would not track for emails messages, only "new mail".	Test Plan: See description. <input checked="" type="checkbox"/> Review required?	Requirement: See description. <input checked="" type="checkbox"/> Review required? Design: See description. <input checked="" type="checkbox"/> Review required?	Test Plan: See description. <input checked="" type="checkbox"/> Review required?	Ac035	Code Complete Blunt At Risk
430 14 POP3 security - only 3 rings	The objective of this feature is to allow the user to access their mailboxes through POP3 security. This will be accomplished by fixing the POP3 proxy list only the "most recent 100".	Test Plan: See description. <input checked="" type="checkbox"/> Review required?	Requirement: See description. <input checked="" type="checkbox"/> Review required? Design: See description. <input checked="" type="checkbox"/> Review required?	Test Plan: See description. <input checked="" type="checkbox"/> Review required?	Ac036	Code Complete Blunt On Target

Exhibit 3

Assignments - Microsoft Internet Explorer

ID	Priority	Description	Details
455	10	Alert filters	Provide the ability for a user to set criteria so that e-mail delivered to a mailbox triggers an alert to their device.
590	10	Apr03 Provisioning changes	This feature includes changes to the provisioning flow and text to increase user success. It also may include control that can access Outlook in Corporate mode.
608	10	Replace SMTP for alerting	<ul style="list-style-type: none"> • This is closely related to the WAP push FPL item and should be assigned to the same developer(s). • Leading candidates to replace SMTP are: <ul style="list-style-type: none"> ○ SMPP 3.4 ○ PAP(Push Access Protocol)
609	13	Polling Optimization	<p>Objectives include:</p> <ul style="list-style-type: none"> • Reduce our bandwidth usage, and thus our Exodus bill. • Reduce workload on POP mail providers • Reduce workload on OWA 5.5 mail providers • Reduce workload on OWA 2K and iNotes mail providers <ul style="list-style-type: none"> ○ One option is to make the majority of polls "new mail only" polls. These polls would not check for messages, only "new mail".

11497_QuickPoll_FPL11.JPG

Exhibit 4

Assignments - Microsoft Internet Explorer	
Address: http://project.seattle.rim.net/fpl/viewAll.asp?taskTypeId=0&targetReleaseId=0&teamMemberId=0&isTeamMember=true&submit=Search	
	Design : See description <input type="checkbox"/> Review required? Test Plan : See description
Provide the ability for a user to set criteria so that e-mail delivered to a mailbox triggers an alert to their mobile device.	Requirements : See description <input type="checkbox"/> Review required? Design : See description <input type="checkbox"/> Review required? Test Plan : See description
This feature includes changes to the provisioning flow and text to increase user success. It also may include an import control that can access Outlook in Corporate mode.	Requirements : [documents] <input type="checkbox"/> Review required? Design : See description <input type="checkbox"/> Review required? Test Plan : See description
<ul style="list-style-type: none"> • This is closely related to the WAP push FPL item and should be assigned to the same developer(s). • Leading candidates to replace SMTP are <ul style="list-style-type: none"> ○ SMPP 3.4 ○ PAP(Push Access Protocol) 	Requirements : [documents] <input type="checkbox"/> Review required? Design : [documents] <input type="checkbox"/> Review required? Test Plan : See description
Objectives include: <ul style="list-style-type: none"> • Reduce our bandwidth usage, and thus our Exodus bill. • Reduce workload on POP mail providers • Reduce workload on OWA 5.5 mail providers • Reduce workload on OWA 2K and iNotes mail providers <ul style="list-style-type: none"> ○ One option is to make the majority of polls "new mail only" polls. These polls would not check for deleted messages, only "new mail". 	Requirements : [documents] <input type="checkbox"/> Review required? Design : See description <input type="checkbox"/> Review required? Test Plan : See description

11497_QuickPoll_FPL21.JPG

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